

**METHOD FOR CONDITIONING A
COMPRESSOR AIRFLOW AND DEVICE THEREFOR**

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Abstract

In a method for conditioning a compressor airflow in an axial compressor which comprises in a coaxial arrangement a central rotor and stator surrounding said rotor, an airflow is sucked in at an entrance and is compressed on the way to an exit, whereby the sucked-in airflow is a combination of a main flow and boundary flow which
10 flows adjacent to the inner wall of the stator. Cooling air is taken from the boundary flow at an outlet which is located before the exit. A temperature of the cooling air is reduced in a simple and effective way by injecting water into the boundary flow between the entrance and the outlet. The injected water cools down the boundary flow by
15 evaporation.

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